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(54) Title: METHODS OF USING A STEROL BIOSYNTHESIS PATHWAY REPORTER GENE TO SCREEN FOR ANTIFUNGAL OR LIPID LOWERING COMPOUNDS

(57) Abstract: The present invention relates to methods of using nucleotide sequences from the promoter region of a *S. cerevisiae* gene YRM325W whose expression is an indicator of inhibition or modulation of the sterol biosynthesis pathway in *S. cerevisiae*. The invention envisions using a target polynucleotide sequence, wherein the target polynucleotide sequence is operably linked to the promoter region of the YMR325W gene, to screen chemical libraries and natural products for compounds which can be used either as antifungal agents for use against a variety of fungal pathogens, or as lipid lowering agents to treat hypercholesterolemia. The invention also envisions using the methods of the invention to assay the efficacy of and/or specificity of antifungal agents and lipid lowering agents, and/or to monitor the activity of the sterol biosynthesis pathway.